Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (Canceled)

4. (Previously presented) A transparent electrode comprising:

a ZnO layer; and

an Mg-doped ZnO film formed on the ZnO layer,

wherein the ZnO layer is formed on a semiconductor layer, and

wherein the semiconductor layer comprises a GaN system semiconductor layer.

5. (Previously presented) A transparent electrode comprising:

a ZnO layer; and

an Mg-doped ZnO film formed on the ZnO layer,

wherein the ZnO layer is formed on a semiconductor layer, and

wherein the semiconductor layer comprises an n-type GaN system semiconductor layer formed on a substrate, an emission layer formed on the n-type GaN system semiconductor layer, and a p-type GaN system semiconductor layer formed on the emission layer.

6. (Previously presented) The transparent electrode of Claim 4, wherein the Mg-doped ZnO film overlies an upper surface of the ZnO layer.

7. (Canceled)

8. (Previously presented) The transparent electrode of Claim 4, wherein a first metal pattern is formed on the Mg-doped ZnO film.

9. (Previously presented) The transparent electrode of Claim 4, wherein a second metal pattern is formed on the semiconductor layer.

10. (Previously presented) The transparent electrode of Claim 4, wherein the Mg-doped ZnO film improves acid resistance of the transparent electrode.

11. (Previously presented) The transparent electrode of Claim 4, wherein the semiconductor layer is formed on a substrate.

12. (Canceled)

13. (Previously presented) A light emitting device comprising:

a semiconductor layer formed on a substrate;

a ZnO transparent electrode formed on the semiconductor layer; and

an Mg-doped ZnO film formed on the ZnO transparent electrode,

wherein the semiconductor layer comprises a GaN system semiconductor layer.

14. (Previously presented) A light emitting device comprising:

a semiconductor layer formed on a substrate;

a ZnO transparent electrode formed on the semiconductor layer; and

an Mg-doped ZnO film formed on the ZnO transparent electrode,

wherein the semiconductor layer comprises an n-type GaN system semiconductor layer formed on the substrate, an emission layer formed on the n-type GaN system semiconductor layer, and a p-type GaN system semiconductor layer formed on the emission layer.

15. (Previously presented) The light emitting device of Claim 13, wherein the Mg-doped ZnO film overlies an upper surface of the ZnO transparent electrode formed on the semiconductor layer.

16. (Canceled)

17. (Previously presented) The light emitting device of Claim 13, wherein a first metal pattern is formed on the Mg-doped ZnO film.

18. (Previously presented) The light emitting device of Claim 13, wherein a second metal pattern is formed on the semiconductor layer.

19. (Previously presented) The light emitting device of Claim 13, wherein the Mg-doped ZnO film improves acid resistance of the light emitting device.

20-25. (Canceled)